

What is claimed is:

1. A liquid crystal display device comprising:

electrodes of the one side formed on the pixel regions on the surface of one of the substrates arranged facing each other with the liquid crystals interposed therebetween and on the side of the liquid crystals, and electrodes of the other side formed on at least the pixel regions on the surface of the other substrate on the side of the liquid crystals; wherein

each electrode of the one side has a shape of a plurality of circular patterns or patterns close to circles that are arranged in contact with each other, whereby a region where the electrode of the one side is not formed is surrounded by the plurality of circular patterns or patterns close to circles of an odd number of three or more; and

projections are formed on the surface of the other substrate on the side of the liquid crystals at portions facing nearly the centers of the circular patterns or the patterns close to circles.

2. A liquid crystal display device according to claim 1, wherein the electrodes of the one side are pixel electrodes, and the electrodes of the other side are the opposing electrodes.

3. A liquid crystal display device according to claim 2, wherein each pixel electrode has a shape in which a plurality of circular patterns or patterns close to circles are arranged neighboring each other and electrically connected to each other.

4. A liquid crystal display device according to claim 2, wherein there are formed a plurality of gate signal lines in parallel and a plurality of drain signal lines in parallel intersecting the gate signal lines on the surface of one of the substrates on the side of the liquid crystals, the regions surrounded by the gate signal lines and the drain signal lines serving as pixel regions;

the pixel electrodes are arranged on the pixel regions together with the switching elements that are driven by scanning signals from the gate signal lines, so that video signals are fed from the drain signal lines through the switching elements; and

among the circular patterns or the patterns close to circles of the pixel electrodes, the circular patterns or the patterns close to circles near the drain signal lines or the gate signal lines are so deformed as to possess a side that goes along the side of the drain signal lines or of the gate signal lines at portions near the drain signal lines or the gate signal lines.

5. A liquid crystal display device according to claim 1, wherein the pattern close to the circle is of a polygonal shape having five or more corners.

6. A liquid crystal display device according to claim 5, wherein the polygonal shape has rounded corners.

7. A liquid crystal display device comprising:

pixel electrodes formed on the pixel regions on the surface of one of the substrates arranged facing each other with the liquid crystals interposed therebetween and on the side of the liquid crystals, and opposing electrodes formed on at least the pixel regions on the surface of the other substrate on the side of the liquid crystals; wherein

the pixel electrodes are such that groups of patterns in which a plurality of circular patterns or patterns close to circles are neighboring each other in one direction, are arranged neighboring each other in a direction at right angles with the above one direction, the patterns in one group of patterns being deviated by a half pitch from the patterns of the other neighboring groups of patterns, and the patterns being in contact with each other at their contours; and

projections are formed on the surface of the other substrate on the side of the liquid crystals at portions facing nearly the centers of the circular patterns or the patterns close to circles.

8. A liquid crystal display device according to claim 7 wherein the pixel electrodes are such that groups of patterns in which a plurality of circular patterns or patterns close to circles are neighboring each other in one direction, are arranged neighboring each other in a direction at right angles with the above one direction, the patterns in one group of patterns being deviated by a half pitch from the patterns of

the other neighboring groups of patterns, and the patterns being electrically connected to each other at their contours.

9. A liquid crystal display device according to claim 8, wherein the pattern close to the circle is of a polygonal shape having five or more corners.

10. A liquid crystal display device according to claim 9, wherein the polygonal shape has rounded corners.

11. A liquid crystal display device according to claim 7, wherein there are formed a plurality of gate signal lines in parallel and a plurality of drain signal lines in parallel intersecting the gate signal lines on the surface of one of the substrates on the side of the liquid crystals, the regions surrounded by the gate signal lines and the drain signal lines serving as pixel regions;

the pixel electrodes are arranged on the pixel regions together with the switching elements that are driven by scanning signals from the gate signal lines, so that video signals are fed from the drain signal lines through the switching elements; and

among the circular patterns or the patterns close to circles of the pixel electrodes, the circular patterns or the patterns close to circles near the drain signal lines or the gate signal lines are so deformed as to possess a side that goes along the side of the drain signal lines or of the gate signal lines at portions near the drain signal lines or the

gate signal lines.

12. A liquid crystal display device comprising:

electrodes of the one side formed on one of the substrates arranged facing each other with the liquid crystals interposed therebetween, and electrodes of the other side formed on the other substrate; wherein

each electrode of the one side has a shape in which a plurality of circular patterns or patterns close to circles are arranged being electrically connected together; and

projections are formed on the other substrate at portions facing the circular patterns or the patterns close to circles.

13. A liquid crystal display device according to claim 12, wherein the electrode of the one side comprises the plurality of circular patterns or patterns close to circles of an odd number of three or more to surround a region where the electrode of the one side has not been formed.

14. A liquid crystal display device according to claim 12, wherein the electrodes of the one side are pixel electrodes, and the electrodes of the other side are common electrodes.

15. A liquid crystal display device according to claim 14, wherein there are formed a plurality of gate signal lines in parallel and a plurality of drain signal lines in parallel intersecting the gate signal lines on the surface of one of the substrates on the side of the liquid crystals, the regions surrounded by the gate signal lines and the drain signal lines

serving as pixel regions;

the pixel electrodes are arranged on the pixel regions together with the switching elements that are driven by scanning signals from the gate signal lines, so that video signals are fed from the drain signal lines through the switching elements; and

among the circular patterns or the patterns close to circles of the pixel electrodes, the circular patterns or the patterns close to circles near the drain signal lines or the gate signal lines are so deformed as to possess a side that goes along the side of the drain signal lines or of the gate signal lines at portions near the drain signal lines or the gate signal lines.